Here is our broadcast 987, transmitted live on HF on Sunday 30th November.
If you would like to receive our broadcast live, we transmit each Sunday
on the following frequencies, and times, using Rtty mode, except where shown.

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  3.545 MHz (Plus/minus 5)   0930 UTC     VK2CTD (COL)
  7.045 MHz  -3              0030 UTC     VK2CTD (COL)
 14.070 MHz (amtor/fec)      0030 UTC     VK2DPM (ALAN)
 14.091 MHz                  0030 UTC     VK2DPM (ALAN)
146.675 MHz             0030/0930 UTC     VK2JPA (PAT)
144.850 MHz (ax25 bbs)                    VK2JPA AT VK2WI
146.675 MHz (rtty mmbbs/repeater)         VK2RTY


        INTERNET         RADIO-INFO-DIST AT UCSD.EDU
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Views expressed in this news bulletin are not necessarily
those of the Broadcast Officer, the Relay Officers, or of the
Society.

A.N.A.R.T.S. News Bulletin 987 30TH NOVEMBER 1997 page 1

COLS COLUMN

WE ARE ALMOST AT THE END OF THE PART THAT COOKE AND WHEATSTONE
PLAYED IN EARLY COMMUNICATIONS.

THIS WEEK WE CONCENTRATE ON A DEVICE DESIGNED AND PATENTED BY
WHEATSTONE. COOKE THOUGHT HIS NEEDLE TELEGRAPH THE BEST
POSSIBLE FORM OF ELECTRICAL COMMUNICATION. BUT WHEATSTONE
THOUGHT IT WAS UNNECESSARY TO TRAIN OPERATORS TO USE THE
COMPLICATED CODE SYSTEM, MUCH MORE COMPLEX THAN MORSE CODE FOR
EXAMPLE.

HE SET ABOUT DESIGNING A DEVICE THAT LESS SKILLED OPERATORS
COULD USE AND CAME UP WITH AN 'ESCAPEMENT' INSTRUMENT THAT HE
CALLED THE 'ABC' TELEGRAPH. THIS TELEGRAPH HAD ELECTROMAGNETS
ACTUATED BY 'MANY TURNS OF FINE WIRE', AS HENRY HAD SUGGESTED
AND IT WAS POSSIBLE TO WORK THESE TELEGRAPHS AT LEAST OVER
SHORT DISTANCES.

THERE WERE MANY VERSIONS, ONE OF WHICH HAD A PAPER DISC
ROTATED BY A CLOCKWORK, THE ESCAPEMENT OF THIS CLOCKWORK WAS
CONTROLLED BY AN ELECTROMAGNET. THE ELECTROMAGNET WAS
TRIGGERED BY IMPULSES OF CURRENT FROM LINE.

AT THE TRANSMIT END OF THE TELEGRAPH, ELECTRICAL IMPULSES WERE
SEND TO LINE BY MAKING AND BREAKING A BATTERY CIRCUIT BY MEANS
OF A DIALER, THE 'ABC' SENDER. THIS ABC SENDER WHICH WAS
PATENTED BY WHEATSTONE IN 1839, ANTICIPATED VERY CLOSELY THE
20TH CENTURY AUTOMATIC TELEPHONE DIAL. A METAL DISC, SET ON A
SPINDLE, WAS ENGRAVED ON ON THE EDGE WITH THE ALPHABET, EXCEPT
FOR Q, X, AND U. THE DISC WAS FITTED WITH SPOKES, IN BETWEEN
EACH WAS ENGRAVED A LETTER. THE SPACE BETWEEN EACH SPOKE
SERVED AS FINGER HOLES.

THE DISC WAS ROTATED BY THE SEND OPERATOR AS FAR AS A FIXED
STOP, AGAIN JUST LIKE THE MODERN DIALER. PAIRS OF CONTACTS
BEHIND THE DIAL WERE MADE AND BROKEN FOR EACH LETTER AS IT
PASSED THE FIXED STOP, AGAIN LIKE A MODERN TELEPHONE. THE
ELECTRICAL IMPULSES WERE THUS FED TO THE LINE AND ACTUATED THE
CLOCKWORK DRIVEN RECEIVER.

IN TODAYS MODERN PHONES, WHEATSTONES RECEIVER WAS REPLACED BY

A UNISELECTOR, STILL IN USE UNTIL RECENT TIMES. IF THERE ARE SOME STILL IN USE PLEASE FEEL FREE TO LET US ALL KNOW.

THE 'ABC' TELEGRAPH WERE SLOWER THAN THE 'NEEDLE' TYPE BUT WERE MORE RELIABLE AND NEEDED NO KNOWLEDGE OF A 'CODE'. DESPITE THIS IT WAS SUPERSEDED BY THE NEEDLE TELEGRAPH ON THE BRITISH RAILWAYS DURING THE YEARS 1840 TO 1850. THE TELEGRAPH AT THIS TIME WAS PRACTICALLY ENTIRELY IN THE HANDS OF THE RAILWAYS COMPANIES AND WERE WORKED BY SKILLED OPERATORS. WHEATSTONE PERSISTED AND MADE MANY IMPROVEMENTS IN 1856 AND AFTER 1860, DIALER TELEGRAPHS WERE WIDELY USED ON PRIVATE CIRCUITS.

WHEATSTONE WAS A GREAT BELIEVER IN OPERATORS BEING ABLE TO USE THE TELEGRAPH IN A SIMPLE WAY. HE WENT FURTHER THAN THE 'ABC' TELEGRAPH AND PRODUCED A RECEIVING INSTRUMENT WHICH USED ROTATING TYPE. THE TYPE WAS PRESSED DOWN ONTO A MOVING STRIP OF PAPER BY THE ELECTRICAL IMPULSES. HE TOOK OUT BRITISH PATENT NUMBER 9022 IN 1841 FOR THIS MACHINE. THE SPEED WAS AGAIN SLOWER THAN THE NEEDLE TELEGRAPH AND THIS TELEGRAPH WAS NOT USED COMMERCIALLY.

HE MADE JUST TWO MODELS, ONE OF THESE IS IN THE SCIENCE MUSEUM, SOUTH KENSINGTON, LONDON AND THE OTHER IN THE ROYAL SCOTTISH MUSEUM EDINBURGH. I MENTION THIS JUST IN CASE YOU ARE MAKING AN OVERSEAS TRIP SOMETIME.

FINALLY THIS WEEK, IT IS INTERESTING TO NOTE THAT IN THE BRITISH POST OFFICE GREEN PAPER NUMBER 5, 1934, IT STATES THAT A WHEATSTONE 'ABC' INSTRUMENT WAS STILL IN USE IN A NORTH WALES POST OFFICE IN 1930.

THATS ALL FOR THIS WEEK, 73S DE COL VK2CTD...

IPS WEEKLY SOLAR AND GEOPHYSICAL REPORT 21-27 NOV

SUMMARY

Date	21	22	23	24	25	26	27
10cm	96	--	100	103	102	108	111
A	--	34	52	6	3	4 (3 expected)	
T	67	--	-9	-24	45	59	70

Solar was very low on 22 and 23 low on 21 and 25 nov, moderate moderate on 24 and 26 high on 27th. There was an M1 flare on 24 an M2 flare on 26 and an X2 flare on 27th.

Geomagnetic activity at Learmonth (W.A.) was quiet 21st, 25th to 27th; unsettled to active on 24th; mainly unsettled to active, with a major storm 1200 to 1500 UT on 23rd. There was no data for 22nd.

Maximum useable frequencies were mostly near predicted monthly values 21st and 27th; depressed 15 to 30 per cent after 1100 UT on 23rd, and depressed 20 to 40 per cent up to 1800 UT on 24th. Frequencies were enhanced to 40 per cent between 1600 to 2200 UT on 25th, with Spread F and blanketing Sporadic E during local night; and near predicted monthly values to slightly enhanced on 26th. No data was available for 22nd.

FORECAST 28 NOV - 04 DEC

SOLAR: MODERATE TO HIGH.

GEOMAGNETIC: QUIET TO UNSETTLED.

FREQUENCIES: NEAR PREDICTED MONTHLY VALUES.

COURTESY OF IPS RADIO AND SPACE SERVICES

VK2SG RTTY DX NOTES FOR WEEK ENDING 21 NOV. 1997 (RTDX1121)

Our information this week came from DJ3IW and the Central Europe DX Cluster DB0SPC, DL3KDV, I5FLN and the IK5PWJ Packet-cluster, OH2BUA WebCluster, TU5EX, W5KSI, WB2CJL, WX5L, DXNL (DL5AV), DXNS, OPDX/BARF80, and the NJ0M node of the Twin Cities DX Packetcluster Network.

Bandpass:
Friday 14
0903-14233 KL7J SSTV
0915-14084 3D2RW/R
1006-3503 R1TTY
1154-14084 OF6KVF
1156-14078 BV4ME
1246-14083 OY4TN
1449-14088 4Z5SAV
1451-14086 OE1KTS
1658-14083 TT8JFC QSL via WA4JZB See Note
1733-7033 HS2CRU Pactor 2
2345-14089 JH1HRJ
2346-14089 PZ1BS

Saturday 15
0057-14090 BV4ME
0750-14083 TT8JFC
0913-14091 BV4ME
1114-14070 OE1XRC Pactor
1230-18106 ON6TS Pactor
1312-21075 9X0A Pactor
1343-21075 EA9JZ Pactor
-More-1348-21075 PJ2MI Pactor
1404-21087 FR5GS
1458-14082 9U5CW
1504-21087 ZS6RVG
1500-21080 9U5CW
1520-14083 YB4JIM
1509-21340 TT8KM SSTV
1521-21078 TT8KM
1528-14083 YB4JIM
1527-14084 T77T
1540-14084 OY4TN
1542-14234 YB4JIM SSTV
1613-14086 FR5GS
1715-14081 9Q5PA
1933-14087 EA8AG
2031-14085 TT8JCF
2104-14082 XT2DP
2157-14083 8R1Z
2200-14087 D2AI QSO via CT1EGH
2208-14087 ZP5ALI

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2313-7034  TT8JFC
2230-14083 ZP5KW
2243-14083 CE6ABC

Sunday 16
0005-7034  TT8JFC
0735-14086 VP8CTR
1103-21080 EA8/DJ5FT
1203-21081 EA9JZ
1231-14089 OY4TN
1254-14082 YV5AAX
1327-21086 9U5CW
1444-21092 TT8BE QSL via F6FNU
1512-21084 SV1ADG
1522-21082 XE1J
1733-14078 EA8AG
2138-14080 8R1Z
2142-14080 HR1JRR
2238-14086 JA3DLE
2251-14084 FG5GI
2252-14082 FM5CD
2308-14086 PY7MG
2319-14085 JA1WSK

Monday 17
0758-14088 JS5TG
1233-14082 IT9SGN
1242-14079 JH0OXX

Tuesday 18
0757-14085 OA4BR
0809-14080 ZL1BOE
1037-21340 EZ8BM SSTV
1109-21340 ZS6Y  SSTV
1120-21340 LA2HAA SSTV
1500-14085 8R1Z
1518-14089 4Z5AO
1541-14082 CT3FE
1547-14086 PA0AL
1543-21084 EA9JZ
1608-14081 T77T
1633-14085 OD5NJ
1718-14084 4S7BRG
1725-14078 EA8KG

Wednesday 19
1224-14082 RK3AH
1356-14083 HB9JAP
1613-14086 EA8KK
1640-21082 EA9JZ
1846-14080 EA8AG
2036-14087 ZD7DP
2245-14081 JA8RJE
2301-14085 LU9MBK

Thursday 20
1335-14082 RK3AH
1649-14088 FR5GS
2223-14086 HP1XBH
2255-14087 JA5JGY

Notes of Interest:
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IVORY COAST, TU - Michel, F3KT, with two other French hams will be active from 24 Nov to 3 Dec, including the CQ WW CW DX contest (11/29-11/30), using the call TU3F. Outside that contest they will operate RTTY using equipment provided by TU2XP and TU5EX. WARC band operation is also planned. RTTY skeds can be made with TU5EX at TU5EX.CIV.AF AX25 network, or e-mail to tu5ex at globeaccess.net . QSL via F3KT.

LIBYA, 5A - Operation at 5A7A could commence as early as 23 Nov, and will continue until 3 Dec. Dieter, DL3KDV will be one of the RTTY operators, and will be using a Kenwood TS-690, a 700 watt amp and a 3El 20m beam up 30 meters. Controller will be a SCS PTC+ with WF1B RTTY Dxpedition software. 3 Laptop PC's will be in optical network configuration. RTTY operation will most likely be exlusively on 20m. QSL via bureau or direct to Dieter Voss DL3KDV, Friedrichsthal 21, D-51688 Wipperfuerth, Germany.

SOUTH SHETLANDS, HF - Stan, SP3BGD, will be the new operator at HF0POL, the Polish Antarctic Station, starting 1 Jan 1998. He plans to concentrate on RTTY and CW until Dec 1998. QSL either via bureau, or direct to SP3SUN, Piotr Miranski, ul. Rydza Smiglego 27/5, 65-610 Zielona Gora, Poland.

TOGO, 5V - N7MB/5V7MB will be QRV on RTTY several days prior to, and after the CQ WW CW DX contest. QSL to home CBA.

The VK2SG RTTY DX NOTES are distributed via the WinLink network, and are also available on the Internet at reflector digital-dx at st.rim.or.jp and the OH2BUA WebCluster at URL http://www.clinet.fi/(tilde)jukka/rtty.html

For next week's bulletin, send your bandpass and notes of interest to Bob, WB2CJL at W5KSI.(hash)NOLA.LA.USA.NA or e-mail to wb2cjl at juno.com .

73 and good hunting de Jules W2JGR at W5KSI.(hash)NOLA.LA.USA.NA

ARLD049 DX news

This week's bulletin was made possible with information provided by Tedd, KB8NW, the OPDX Bulletin, QRZ DX, The 599Rpt, G4BUE and The Daily DX. Thanks to all.

ROTUMA ISLAND, 3D2. Look for 3D2AG/p to be active on 80 to 10 meters including the newer bands until early Jan 1998. QSL via 3D2AG.

CYPRUS, 5B. Look for UA9YAB, RA9JX, RA9JR, UA9MA, UN7FZ and UN7FW to be QRV as 5B4/homecalls from Nov 25 to early Dec. They will also participate in the CQ WW CW Contest as either P3A or H2A. QSL contest call via W3HNK. QSL all others to homecalls.

WESTERN MALAYSIA, 9M2. Don, G3OZF, will be QRV as 9M2/G3OZF from Pulau Pangkor, IOTA AS-072, from Nov 24 to Dec 2. Activity will be on 80 to 10 meters, with an emphasis on CW. He will also be active in the CQ WW CW Contest. QSL to home call.

MOLDOVA, ER. Slawa ER1LW is QRV on the weekends on the newer bands using CW and SSB. He has also been active on RTTY. QSL to home call.

MINAMI TORISHIMA. JD1. Ryoichi, JL1KFR, will be QRV from Nov 25 to Dec 15 as JL1KFR/JD1. He is here to work on the weather station, so operating time will be limited. Activity will be on 80 to 10 meters, using mainly CW around 0900 to 1100z. QSL to home call.

CRETE, SV9. Karl, DJ5IL, will be QRV as J49IL from Nov 25 to Dec 3 using CW and SSB on 40 to 10 meters. He will also participate in the CQ WW CW Contest. QSL to home call.

GABON, TR. Jean TR8XX is QRV on 160 mtrs around 0515z. QSL to home call.

ANTIGUA, V2. WA3WSJ and K3TEJ will be QRV as V26ED and V26KW, respectively, from Nov 25 to Dec 2. Activity will be on all HF bands, using CW and SSB. They will participate in the CQ WW CW Contest as V26KW. Amir, 4X6TT, is QRV now as V29TT. His length of stay is unknown. QSL to home calls.

NAMIBIA, V5. Frank, DL7UFS, is QRV as V5/DL7UFS from Swakopmund using mostly CW on 20, 15 and 10 meters. His length of stay is unknown. QSL to home call.

Society information

The Society may be contacted at : PO Box 860, Crows Nest 2065 Australia, for such matters as membership and general enquiries. Enquiries can also be made by packet to the President (Col) VK2CTD at VK2WI, or the Secretary (Pat) VK2JPA at VK2WI.

Email address for the Broadcast Officer is :
patl(at)conmusic.usyd.edu.au or patl(at)mail.users.usyd.edu.au

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Dave Horsfall (VK2KFU) | dave@esi.com.au | VK2KFU @ VK2KFU.NSW.AUS.OC | PGP 2.6
Opinions expressed are mine. | D8 15 71 F9 26 C8 63 40 5E 63 5C 65 FC A0 22 99